

Amendments to the Drawings:

The drawing sheets attached in connection with the above-identified application containing Figure(s) 8-10, 12, and 14 are being presented as new formal drawing sheets to be substituted for the previously submitted drawing sheets. Figures 8, 12, and 14 have been amended.

REMARKS

This Amendment is in response to the Office Action mailed on March 12, 2007 in which claims 1, 3, 5-9, 11, 13, 15, 17, 21, 23, 25, 27, 29, 30, 32, 34, 36, 38, 39, 41, 61-65, 68, and 69 were rejected. With this Amendment, claims 32, 34, 36, 37, and 38 are amended and claim 62 is cancelled without prejudice. Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

I. Objection to the Drawings

On page 2 of the Office Action, the Examiner objected to the drawings and identified certain reference numeral issues. Applicant has amended Fig. 12 to change reference numeral 56 to 52 as suggested by the Examiner. Applicant has amended Fig. 8 to change reference numeral 58 to 48 to address the issue identified by the Examiner. Applicant has amended Fig. 14 to remove reference numeral 16 to address the issue identified by the Examiner (reference numeral 16 is not referred to in the corresponding paragraph [0045] in the specification). Applicant respectfully submits that the amendments to the drawings address the objections identified by the Examiner and therefore requests that the Examiner withdraw the objection.

II. Rejection of Claims 32, 34, 36, 38, and 62 Under 35 U.S.C. § 112

On page 3 of the Office Action, the Examiner rejected claims 32, 34, 36, and 38 under 35 U.S.C. § 112, second paragraph, indicating that independent claim 32 is drawn toward a “vertebral prosthesis,” which is incompatible with the recitation of first and second artificial discs in the body of the claim. To address the objection, Applicant has amended independent claim 32 and its corresponding dependent claims to recite in the preamble “a spinal implant system having a vertebral prosthesis compatible with multiple disc prostheses.” The “spinal implant system” recited in the preamble has a scope that includes both the vertebral prosthesis and artificial discs. In view of the above amendments, Applicant respectfully asserts that claims 32, 34, 36, and 38, as amended, comply with 35 U.S.C. § 112 and presents those claims for reconsideration and allowance.

On page 3 of the Office Action, the Examiner indicated that claim 62 does not further limit independent claim 61. Applicant has cancelled claim 62 and therefore submits that the rejection of claim 62 is moot.

III. Rejection of Claims 1, 3, 5-9, 11, 13, 15, 17, 21, 23, 25, 27, 29, 30, 32, 34, 36, 38, 39, 41, 61-63, and 68-69 Under 35 U.S.C. § 102(b) as Anticipated by Rabbe et al.

On page 4 of the Office Action, the Examiner rejected claims 1, 3, 5-9, 11, 13, 15, 17, 21, 23, 25, 27, 29, 30, 32, 34, 36, 38, 39, 41, 61-63, and 68-69 under 35 U.S.C. § 102(b) as anticipated by Rabbe et al., U.S. Patent No. 6,344,057. Applicant respectfully traverses the rejection under Rabbe et al.

Independent claims 1, 7, and 61 require “an artificial spinal disc coupled to the endplate.” Independent claim 21 requires “an artificial spinal disc” and a “first endplate having a recess adapted to receive the artificial spinal disc.” Independent claim 32 requires “an endplate tray” that “is implanted adjacent either one of a first artificial disc . . . or a second artificial disc.” Independent claim 39 requires “a first endplate” having “a second side coupled to a first artificial disc” and “a second endplate having . . . a second side coupled to a second artificial disc.” Accordingly, each of the recited independent claims requires an artificial disc.

Rabbe et al. does not identically disclose an artificial disc. Referring to Applicant’s specification, “an artificial spinal disc or spinal disc prosthesis, shown as artificial disc 40, may be used to replace a natural disc that is excised during vertebral body replacement surgery. When used in a spinal disc replacement surgery, artificial disc 40 typically includes plates, such as endplates 42, 44, adjacent a bearing surface or core 46. The endplates 42, 44 typically have teeth 48 that help endplates 42, 44 anchor into the adjacent vertebrae. The core 46 may be made of rubber and the endplates may be made of chrome.” See paragraph [0039]. Rabbe et al. does not identically disclose an artificial disc. The Examiner identifies “two artificial disc implants (23, located where the natural disc are removed therefore, are replacing the discs)” as corresponding to the artificial discs recited in the independent claims. Referring to Rabbe et al., the “endcaps 23” are a part of the “vertebral body replacement assembly 20” and are not artificial

discs. See col. 6, lines 9-13 and Fig. 3. Rabbe et al. discloses a fusion device that provides a rigid connection between the two vertebra adjacent a resected vertebra (thus the spikes used to penetrate the endplate of the adjacent vertebra). In contrast, the device disclosed in the present application is configured to be implanted adjacent one or two artificial discs and further secured via the posterior elements of the resected vertebra to provide stability.

Independent claim 11 recites “a pedicle screw retainer coupled to at least one of the shaft and the endplate.” Independent claims 21 and 39 recite “a pedicle screw retainer coupled to at least one of the shaft, the first endplate, and the second endplate.” Independent 32 recites “a pedicle screw retainer coupled to at least one of the shaft and the endplate tray.” Independent claim 61 recites “a pedicle screw retainer coupled to at least one of the endplate and the support.”

Rabbe et al. does not identically disclose a vertebral prosthesis having a pedicle screw retainer. In contrast, Rabbe et al. discloses a “vertebral body replacement assembly 20” having spikes (91, 120), blades 130, or a “support assembly 55” to hold the assembly in place. See col. 6, line 65 - col. 7, line 12; col. 9, line 62 - col. 10, line 4; and Fig. 3. The Examiner identifies “pedicle screw retainer (57 in fig. 3 or 107 in fig. 9)” as corresponding to the pedicle screw retainer of the identified claims. However, the “stabilization plate 57” and the “distraction plate 107” do not appear to be pedicle screw retainers. In fact, the stabilization plate 57 appears to be part of the support assembly 55 that is used to insure that the inserted vertebral prosthesis does not migrate or slip in position between the intact vertebra, quite in contrast to the vertebral prosthesis of the above-identified claims, which includes a pedicle screw support to reduce or eliminate the need for such an external plate such as that disclosed in Rabbe et al. The “distraction plate 107” of Rabbe et al. appears to be a separate plate that is mounted to an adjacent vertebra by a bone screw 108 and used as part of a distraction instrument. See col. 11, lines 12-29.

Because Rabbe et al. does not identically disclose each and every element of any of independent claims 1, 7, 11, 21, 32, 39, or 61, independent claims 1, 7, 11, 21, 32, 39, and 61

(and their corresponding dependent claims) are not anticipated under 35 U.S.C. § 102(b) and are presented for reconsideration and allowance.

IV. Rejection of Claims 1, 3, 5-9, 21, 23, 25, 27, 29, 30, 32, 34, 36, 38, 39, 61-65, and 68-69 as Anticipated by Strnad et al.

On page 4 of the Office Action, the Examiner rejected claims 1, 3, 5-9, 21, 23, 25, 27, 29, 30, 32, 34, 36, 38, 39, 61-65, and 68-69 under 35 U.S.C. § 102(b) as anticipated by Strnad et al., U.S. Patent No. 6,296,665. Applicant respectfully traverses the rejection under Strnad et al.

Independent claims 1, 7, and 61 require “an artificial spinal disc coupled to the endplate.” Independent claim 21 requires “an artificial spinal disc” and a “first endplate having a recess adapted to receive the artificial spinal disc.” Independent claim 32 requires “an endplate tray” that “is implanted adjacent either one of a first artificial disc . . . or a second artificial disc.” Independent claim 39 requires “a first endplate” having “a second side coupled to a first artificial disc” and “a second endplate having . . . a second side coupled to a second artificial disc.” Accordingly, each of the recited independent claims requires an artificial disc.

Strnad et al. does not identically disclose an artificial disc. The Examiner identifies “bone graft material, disclosed to replace both the vertebral body and two discs” as corresponding to the artificial disc. However, as discussed above, an artificial disc as specifically recited in the claims is a particular device that is not identical to the bone material disclosed by Strnad et al. Similar to Rabbe et al., the device disclosed by Strnad et al. is a spinal fusion device in contrast to a vertebral prosthesis that is implanted adjacent to an artificial disc permitting the preservation of motion.

Independent claims 21 and 39 recite “a pedicle screw retainer coupled to at least one of the shaft, the first endplate, and the second endplate.” Independent 32 recites “a pedicle screw retainer coupled to at least one of the shaft and the endplate tray.” Independent claim 61 recites “a pedicle screw retainer coupled to at least one of the endplate and the support.”

Strnad et al. does not identically disclose a pedicle screw retainer. The Examiner identifies “pedicle screw retainer (202)” as corresponding to the pedicle screw retainer in the above-identified independent claims. Strnad et al. discloses an “apparatus for spinal fixation 10” having “extended plates 202” and corresponding “apertures 204” that are “adapted to receive cortical or bio-cortical screws (not shown) for attachment to the vertebral bodies 12” as opposed to a pedicle screw retainer adapted to receive pedicle screws. See Strnad et al., at col. 3, lines 1-4; col. 6, lines 12-14; and Fig. 8A.

Because Strnad et al. does not identically disclose each and every element of any of independent claims 1, 7, 11, 21, 32, 39, or 61, independent claims 1, 7, 11, 21, 32, 39, and 61 (and their corresponding dependent claims) are not anticipated under 35 U.S.C. § 102(b) and are presented for reconsideration and allowance.

V. Conclusion

Claims 1, 3, 5-13, 15, 17-18, 21-23, 25, 27-30, 32, 34, 36-39, 41, 43, 61, 63-66, and 68-70 are pending in the present application. Claims 10, 12, 18, 22, 28, 37, 43, 66, and 70 are presently withdrawn. The Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application, as amended, is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37

C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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